DOCUMENT RESUME

ED 268 490 CS 008 383

AUTHOR Small, Donald R.; Chambers, Mary Green
TITLE Reading Skills and Courses in High School.
PUB DATE 25 Oct 85
NOTE 9p.; Paper presented at the Annual Meeting of the College Reading Association (29th, Pittsburgh, PA, October 24-26, 1985).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Academic Achievement; *College Freshmen; *College Preparation; Higher Education; High Schools; *Reading Achievement; *Secondary School Curriculum; Vocabulary Development

ABSTRACT

Noting the positive relationships between reading skills and academic performance, a study investigated the relationship between the reading skills of 172 freshmen in developmental reading courses and the number of college preparatory courses completed in high school. It was hypothesized that there would be a significantly positive relationship between comprehension and vocabulary scores and the frequency of college preparatory courses completed in high school. High school course credits from transcripts for each subject were categorized into three subject areas: (1) communications and literary arts, (2) business and vocational arts, and (3) science and mathematics. Courses were further classified as core, general, or preparatory, based on state department of education criteria, and a count under classification was recorded for each student. The results did not appear to support the expectation or validate the underlying assumptions. Students with greater reading abilities were overrepresented among those with fewer college preparatory courses to their credit, based on correlational analysis. Since the study did not observe actual performance in courses taken in high school, the relationship between academic performance and reading ability, per se, can be neither confirmed nor rejected. (HTH)

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Reading Skills and Courses in High School

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Donald R. Small, Ph.D. and Mary Green Chambers, Ed.D.

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A paper presented at the Annual Convention of the College Reading Association, Pittsburg, Pennsylvania.

October 25, 1985

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Introduction

Past studies have shown, consistently, positive relationships between reading skills and academic performance among students. Lee (1933) found that satisfactory academic performance by students in grades four and five required a minimum reading proficiency level of the average fourth grader. Bond (1940) discovered a significant positive relationship between reading skills and general academic performance among tenth graders. In the study by Swenson (1942), significant positive relationships were found between requisite skills in general reading and those required to understand literary materials in science. Strang (1956) estimated that functional reading skills are necessary in eighty to ninety percent of the study activities in the average high school. In a comprehensive study of school dropouts, Penty (1959) found that the poor readers constituted 75% of the students who drop out of school before graduation.

More recent studies of reading proficiency and academic performance validate those of earlier years. Barney (1972) found difficulties in computational skills among students to be strongly associated with a host of essential elements that define reading proficiency. Boder (1973) identified patterns of errors in spelling directly related to deficiencies in reading among grade school pupils. Consistently, Goodstein and Kahn (1973) found reading deficiency to be a primary factor associated with poor performance in mathematics. Wilson and Cleland (1984) identified a host of

negative ramifications of low reading achievement that result in difficulties for students both inside and outside of school.

These findings may come as no great surprise to the lay educator. Indeed, a primary source of many of the difficulties students at all academic levels encounter in pursuit of academic work is reading deficiency--recognizing and understanding main ideas, details and words in context. All academic and vocational courses offered in the academic setting require some amount of reading. Students with avid reading skills possess the basic requirements for attaining substantive learning experiences in a variety of subject areas. These students are most likely to be identified by their teachers as having the academic talent to pursue advanced studies. Thus, these students may be advised by teachers and counselors to take advanced preparatory courses of study.

Rationale and Hypotheses

The present study investigates the relationship between the reading skills of entering college freshmen and the number of college preparatory courses completed in high school. The guiding assumption of this study is that reading proficiency is among the most important and influential attributes associated with academic success. This assumption is based on the notion that skill in reading is an essential prerequisite to academic study in all academic disciplines taught in the schools.

Student academic proficiency in subject matter is, apparently, causally related to how well students are able to master the techniques of encoding and decoding. The effective reader has a greater chance for academic success than the deficient reader. The effective reader is also more likely to be encouraged by teachers, counselors and other concerned observers to

pursue the more academically challenging courses in the curriculum, such as those in college preparatory programs. Based on these assumptions and observations, the following hypotheses are submitted for testing of the posited relationships:

H:1 There is a significant positive relationship between the reading comprehension scores of entering college freshmen and the frequency of college preparatory courses they took in high school.

H:2 There is a significant positive relationship between the reading vocabulary scores of entering college freshmen and the frequency of college preparatory courses they took in high school.

Method

Sample, procedures and instrumentation

The sample consists of a captive audience of 172 freshmen students, recently admitted to the college and enrolled in developmental reading courses. The individual high school transcript of each student was accessed and course credits were recorded in three categories: 1) COMMUNICATIONS AND LITERARY ARTS, 2) BUSINESS AND VOCATIONAL ARTS, and 3) SCIENCE AND MATHEMATICS. Courses were further classified as Core, General, or Prep, based on State Department of Education criteria, and a count under each classification was recorded for each student.

The students were required to enroll in a developmental reading class if their performances on the college placement instrument indicated the need for some degree of remediation in reading. Each student was administered the Nelson-Denny Reading Test of comprehension and vocabulary during the first week of classes. The raw scores were recorded as part of each data record. The Nelson-Denny Reading Test consists of two subtests:

1) Reading Comprehension, which measures the examinee's ability to draw implicit and explicit meanings from selected reading passages and 2) Vocabulary, which measures the examinee's familiarity with a variety of words in context.

Findings

It was hypothesized that reading comprehension and vocabulary scores of entering freshmen are significantly positively related to the frequency of college preparatory courses taken in high school. These predictions are not supported by the findings. Correlational tests reveal significant, though weak, negative relationships between the frequency of college preparatory courses and scores in reading comprehension and reading vocabulary (comprehension, r= -.15; p= .03 and vocabulary, r= -.17; p- .02). Reading comprehension and vocabulary are highly positively related (r= .83), indicating a strong tendency for students making high scores on comprehension to make relatively high scores on vocabulary. These coefficients indicate a slight degree of overrepresentation by students with stronger reading abilities among students with few college preparatory courses to their credit (See TABLE: 1).

TABLE: 1 Correlation Coefficients Between Reading Comprehension and Vocabulary and, the Frequency of College Preparatory Courses taken in High School.

	Comprehension(Y)	Vocabulary(Y)
Freq. of College Prep. Courses (X)	-.15*	-.17**

* p = .03
** p = .02

Examination of the distribution of scores on each measure, indicate a roughly normal spread of reading comprehension scores. The distribution of

reading vocabulary scores is fairly leptokurtic (tall) and slightly positively skewwed, though the range of scores are about the same as that of the distribution of comprehension scores.

Discussion

The purpose of this study was to examine the relationship between reading skills of entering freshmen and the number of college preparatory courses they completed while in high school. It was expected that students with greater proficiency in reading would have more high school college preparatory courses than students with less proficiency in reading. Thus, significant positive relationships were expected between reading measures and frequency of college preparatory courses taken in high school. This expectation was based on three related assumptions: 1) placement in the more challenging college preparatory high school courses is a result of teacher-counselor-parent observation of student performance and potential, 2) students with superior academic performance and potential are channeled into curricula accordingly, and 3) students with superior reading abilities are overrepresented among those channeled into college preparatory courses of study. The results of the present study do not appear to support the expectation nor validate the underlying assumptions. Students with greater reading abilities are overrepresented among those with fewer college preparatory courses to their credit, based on correlation analysis.

The results appear to be inconsistent with the findings of the plethora of studies observing academic performance and reading ability. Since the present study did not observe actual performance in courses taken in high school, the relationship between academic performance and reading ability, per se, can be neither confirmed nor rejected. The findings, however, seem to evoke the question of appropriate placement of students into courses.

If the reading scores of the entering freshmen in the present study are generally representative of their levels of reading proficiency in high school, it may be reasonable to suspect that a significant proportion of these students were not academically challenged commensurate with their potentials.

Additional study is needed to explore the relationship between reading skills and high school course selection. The study exposes a potential guidance and counseling problem that demands investigation. Future studies of reading and courses taken would be enhanced by including and investigation of the guidance and counseling functions.

The present study has several limitations that may have affected the results. Most paramount of these is the absence of data on grades for the courses taken by subjects in the sample. Data on grades in each course would permit analysis of relative performance in conjunction with reading proficiency and frequency of college courses taken in high school. Another factor that may have affected the results is sample selection criteria. A more diverse sample of college students is recommended in future studies to enhance the statistical integrity and generalizability of the findings.

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